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ABSTRACT

The Project was begun in 1979 by the Meals for Millions/Freedom from Hunger Foundation to help bring about changes leading to improvements in the food and nutrition conditions, and overall health, of Papago people living on the reservation. Goals of the Project were to initiate a comprehensive and integrated approach to food and nutrition problems (i.e., agricultural production, food distribution, and diet) and to support and reinforce independence of Papago people by identifying and using locally available and external resources to benefit themselves. In its third year, the Project achieved these goals by using a broad educational approach based on the principles of relevancy, participation, cultural adaptation, and non-formal techniques. Three examples were the Village Nutrition Education workshops, attended by 1,000 participants, discussing topics on balanced diet, breastfeeding, and diabetes; the Village Food Production which encouraged small scale food production and assisted 500 Papago families with seed, fertilizer and other material assistance; and Training for Tribal Paraprofessionals which increased technical skills of Tribal fieldworkers and raised their consciousness of food and nutrition problems and ways to alleviate them. In the future, the Project would like to undertake a comprehensive assessment of food and nutrition conditions on the Papago Reservation. (ERB)

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Papago Food Production and Nutrition Education Project

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RC 013285

MFM/ FREEDOM FROM HUNGER FOUNDATION

PAPAGO FOOD PRODUCTION AND NUTRITION EDUCATION PROJECT

The Papago Food Production and Nutrition Education Project, now in its third year, is an integrated food and nutrition project which combines encouragement of small-scale food production (both gardens and fields) with nutrition education regarding basic health and nutrition concepts, nutrition-related disease, and household food economics. The Project staff works both directly at the village level and in a training capacity with paraprofessional Tribal fieldworkers. More recently we have begun to have an influence in the areas of institutional development and policy formation on the Reservation. Project methods are culturally specific, locally adapted, and people centered. We have established a close collaborative relationship with a Tribal entity, the Papago Nutrition Improvement Program. We also work in cooperation with numerous other Reservation agencies and programs, including the Community Health Representatives, the Community Action Program, the Indian Extension Service, the Indian Oasis School District, the BIA Office of Land Operations, and the Soil Conservation Service.

BACKGROUND

The Papago Reservation is the second largest reservation in the U.S. in land size with 2.8 million acres. The Reservation is located in southern Arizona low desert and mesquite grassland that receives 10-14 inches of annual rainfall during two brief rainy seasons. Two to four killing frosts per year are normal, as are temperatures over 110 degrees in summer. Estimated population is between 8,000 - 10,000 people, most of whom live in the town of Sells (3,000) or in about 40 villages that range in size from several thousand to less than a hundred people.

Approximately 40% of the labor force is unemployed and 72% of families are below the poverty line. Most families survive on a combination of cash income from part-time or seasonal employment, cottage crafts (basketmaking), subsistence activities (farming, hunting, gathering, cattle keeping) and government assistance (Social Security, Commodities, Food Stamps, WIC, etc.)

Papago Indians experience food and nutrition problems very similar to those of rural people in developing countries. Inadequate food quality and quantity lead to widespread malnutrition and nutrition-related disease. Diets are especially deficient in fresh foods (fruits, vegetables, eggs and dairy products). In addition, many Papago are affected by major health problems, such as alcoholism, obesity, diabetes, and gall bladder disease.

These conditions are relatively recent. They have followed the breakdown of an indigneous system of food production, distribution, and consumption that provided an adequate, if not abundant, supply of good quality foodstuffs. Within a period of several decades, Papago villages have gone from virtual food self-sufficiency to food dependency. Traditionally the Papago practiced a form of

flashflood farming that allowed them to raise a variety of crops in the harsh desert environment. After cattle raising was introduced by the Spanish, the two food production activities of farming and ranching were pursued jointly. Hunting and gathering of wild foods was also important. A well defined system of village exchange ensured the redistribution of food and the giving of mutual aid in times of scarcity. Flashflood farming has now almost disappeared. Livestock raising persists but is now geared to commerical production.

Today most rural Papago depend on commercially produced and processed food available from Reservation trading posts and off-Reservation grocery stores. Since most village families are low-income, their purchasing power is limited. While income may be the most severe restraint in obtaining an adequate food supply, a second constraint is lack of transportation to commercial outlets. People living in small, isolated villages must cope with a combination of long distances, poor roads, lack of vehicles, and the high cost of gasoline. As a result, people usually shop at Reservation trading posts where selection is poor and costs, high. Once food is obtained, poor storage facilities and lack of electrification or high cost of utilities make food preservation a problem for village households.

In addition, lack of basic health and nutrition knowledge with regard to both traditional home grown foodstuffs and commercially available food contributes to poor diet and consequent low nutritional status.

PROJECT STRATEGY

Through our Papago Food Production and Nutrition Education Project begun in 1979, Meals for Millions/ Freedom from Hunger Foundation is helping bring about changes leading to improvements in the food and nutrition conditions,

and overall health, of Papago people living on Reservation.

1) The Project takes a comprehensive and integrated approach to food and nutrition problems, attempting to have an impact on each link in the Reservation food system: agricultural production, food distribution, and diet.

2) The Project helps bring about change in a way that supports and reinforces the independence of the Papago people. Specifically, we hope the Project will result in greater Papago self-reliance - through identifying and using locally (or internally) available resources and through increased ability to locate and use external resources for their own benefit.

To achieve these goals, the Project uses a broadly educational approach, though we also provide limited material assistance. Our educational approach is based on the principles of relevancy, participation, cultural adaptation, and non-formal techniques.

We work directly at the village level with community residents, both men and women, of all ages. Efforts are being concentrated on about ten villages, though we have worked less intensively in almost every village on the Reservation.

We also recognize that a necessary coordinate of community change is institutional development. To this end, we provide training, as requested, to Tribal programs involved in any way with food or nutrition in order to enhance their ability to function effectively. These programs are located in Sells, the Tribal headquarters. We also try to serve a 'bridging function'

by encouraging cooperation and mutual support among related Tribal programs and by bringing Tribal programs and village communities into more productive contact.

MFM/FFHF works together with the Papago Nutrition Improvement Program in a long-term collaborative relationship. We also work cooperatively with many other Reservation programs and agencies, including the Indian Extension Service, the BIA Office of Land Operations, the Soil Conservation Service, the Indian Oasis School District, the Sells Hospital, and other health programs such as Disease Control and the Community Health Representatives.

PROJECT ACTIVITIES

Village Nutrition Education

The Project offers village nutrition education on the following topics: basic nutrition concepts such as the relationship between diet and health and how to build a balanced diet, prenatal and early childhood nutrition, the health benefits of breastfeeding, diabetes, and aspects of household food economics, including menu planning and wise shopping on a minimum budget. Future topics will include obesity, gall bladder disease, dental health, hypertension and heart disease, and health improvement through diet and exercise. Participation rates for these workshops have reached approximately one thousand.

This nutrition education is offered through a community workshop format. The workshops are modeled after two traditional Papago institutions, the village feast and the village meeting. All workshops are held at the village feast house. Food preparation is done over wood fires, as it is done in most

Papago homes. A discussion, in which information and knowledge are exchanged by villagers and visitors, is carried on in both Papago and English. The value of traditional Papago foods, both wild and cultivated, is emphasized. Each workshop culminates in a meal, with everyone sharing in its preparation. Simple educational materials in the form of handouts, booklets, and posters are developed for each topic. Sometimes more finished educational materials, such as our booklet, Wild Greens of the Desert People, are produced. In addition, the communities are involved in the planning and evaluation of the workshops through a village committee made up of about four residents whom we meet with frequently.

Another educational vehicle is publishing articles on health and nutrition topics in The Runner, the Reservation newspaper, which reaches thousands of readers.

Two areas of special effort in the last year are breastfeeding and diabetes. MFM/FFHF was one of six cooperating agencies in the creation of a Reservation-wide Breastfeeding Education Project. This effort was funded by the USDA, in order to develop a model project which could be used on other U.S. Indian Reservations. Severe diarrhea is a major health problem on the Papago Reservation. While some babies die of dehydration due to diarrhea, many others are saved by costly emergency medical treatment. Unsanitary bottlefeeding is a leading cause of infant diarrhea. The Project has been able to double the number of babies breastfed at birth, with significant health benefits for Papago infants. The community education, patient counseling services, and breastfeeding nursery for working mothers started by the Project will be continued, and the success of the Project will be communicated to other Reservations.

The Papago and Pima Indians have the highest recorded rate of adult-onset diabetes in the world. A multiplicity of factors - genetic inheritance, change to a modern diet, and reduction in the level of physical activity - account for this. However, diabetes can be delayed, (and possibly prevented) and controlled. Until last year, there had been no community education on diabetes. With the Papago Nutrition Improvement Program, MFM/FFHF is developing a series of village workshops on diabetes - its causes, control, and preventive measures - which attracted large numbers of villagers. We hope to develop a Reservation-wide diabetes campaign, building on what we learned from the successful Breastfeeding Education Project.

Village Food Production

MFM/FFHF encourages small scale food production - household gardens, small fields, and fruit tree cultivation - through a combination of limited material assistance and community education.

Over the last three years, approximately five hundred Papago families have received seeds, fertilizer, tools, fruit trees and other material assistance to enable them to start or improve local food production. The nutritional, ecological, and cultural values of traditional Papago crops and cultivation techniques are emphasized. Sometimes gardening education has been through community workshops; more often it has been one-on-one.

We also support those Papago farmers who are still cultivating their flash flood fields by providing them with information, material improvements, and labor assistance, such as plowing and rototilling. We have introduced technical innovations (such as black plastic liners and small, inexpensive pumps for water catchment basins) to several farmers. In addition, we helped a community group apply for District revenue-sharing funds to revive a local

field, and also helped them obtain a pair of trained draft mules with the aid of Heifer Project International.

Most recently, we carried out an agricultural survey of Topawa village in Baboquivari District. As a result of this survey, we organized a work day on July 31, 1981, during which MFM/FFHF, the Papago Nutrition Improvement Program, the CETA Summer Youth Program, and village residents worked together, using one tractor and two rototillers, to prepare and plant eight gardens and fields. The results of this survey and work day will be presented to the Baboquivari District Council and will influence, we hope, the Council's agricultural efforts and allocation of District funds for this purpose.

In order to make seeds of traditional Papago crops available to Reservation farmers and gardeners, we are helping the Papago Desert Foods Program to develop a Conservancy Garden in Sells to multiply out, package, and distribute these seeds. There have been two planting seasons already.

Papago-adapted educational materials - handouts, booklets - regarding food production are also being developed. Two completed booklets are the Papago Plow Book, on draft animals and plowing techniques, and Seed Saving - The Papago/Pima Way.

Training for Tribal Paraprofessionals

Long-Term Training:

In the area of nutrition education, MFM/FFHF staff work along with the Papago Nutrition Improvement Program nutritionist to train four Papago aides in the following areas: technical knowledge of nutrition, curriculum planning and materials development, non-formal adult education techniques, and needs assessment and evaluation. These aides are involved in preparing, doing, and evaluating the village workshops. As a result, they are gaining experience and confidence in delivering adult education in their own communities.

We are also working with the staff of the Desert Foods Program to increase their ability to provide an effective program to educate the Reservation community about the value of traditional Papago foods and ways of gathering and growing them. This training relationship will continue in the future.

Short Training Events:

MFM/FFHF has also been involved in training events for larger numbers of Reservation healthworkers. In March 1979, we sponsored a two day training session at Sells on maternal/child nutrition for community health workers. The participants learned about prenatal nutrition, infant feeding, and childhood diet. In addition, we participated in designing and giving three training events for all Tribal healthworkers on the health benefits of breastfeeding, practical skills, and counseling techniques, as part of the Breastfeeding Education Project.

In April of 1981, MFM/FFHF offered a training workshop on gardening techniques (including soil management, bed preparation, planting time, and seed saving) for fieldworkers from the Papago Community Action Program.

Such training events serve not only to increase the technical skills of Tribal fieldworkers, but also raise their consciousness of food and nutrition problems and ways to alleviate these. More training events will be held as the need arises.

Institutional Development and Policy Formation

Though a superficial needs assessment was part of the early stages of this Project, no comprehensive assessment of food and nutrition conditions on the Papago Reservation has ever been made, to our knowledge. Nutritional status information is scattered and outdated. Therefore, in October 1981, MFM/FFHF and the Papago Nutrition Improvement Program Indian Health Service Unit will

jointly undertake an intensive needs assessment for the Reservation, collecting baseline data on: the current extent of food production; patterns of food acquisition, including household food economics; patterns of food preparation and consumption; the incidence of nutrition-related desease; patterns of physical activity and levels of exercise; and current programs and services. Such information will not only be useful to us, but will be valuable to many other Papago programs and probably of national significance.

Along with PNIP, we also plan to form a long-needed Advisory Board made up of representatives of all Reservation programs involved in food and nutrition (including agricultural programs, food assistance programs, and nutrition improvement programs). This Food and Nutrition Advisory Board will serve as a clearinghouse and coordinating body. It will provide a mechanism for a large number of programs to share both in the design and results of the needs assessment and take further action.

Staff

The staff for the Papago Food Production and Nutrition Education Project consists of three employees: a full time Anthropologist (the director of the Project) a part time Community Agriculturalist, and a full time Nutritionist.